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ART 34 AMDT

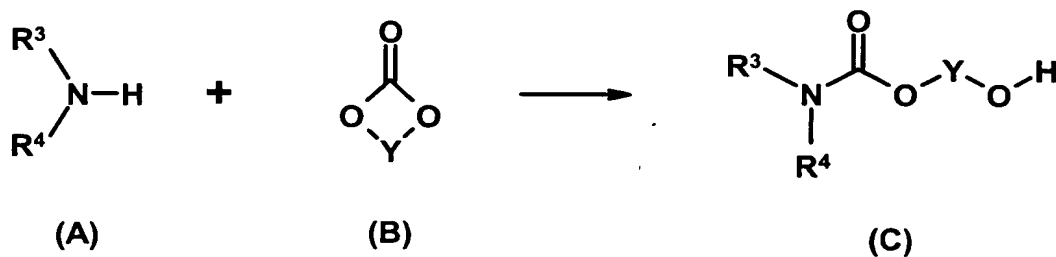
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**THE FOLLOWING ARE THE ENGLISH TRANSLATION
OF ANNEXES TO THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT (ARTICLE 34):**

Amended Sheets (Pages 31-33)

We claim:

- 1) A process for preparing (meth)acrylic esters (F) containing urethane groups by
 - c) reacting an alcohol (C) containing urethane groups with (meth)acrylic acid or an ester of (meth)acrylic acid with a saturated alcohol (D), and
 - d) if desired, working up the reaction mixture from c), which comprises conducting the reaction c) in the presence of an enzyme (E).
- 2) A process as claimed in claim 1, wherein the enzyme (E) is a lipase, esterase or protease.
- 3) A process as claimed in claim 1 or 2, wherein the conversion in stage c) is set to at least 95%.
- 4) A process as claimed in any of the preceding claims, wherein the reaction c) is conducted at from 20 to 80°C.
- 5) A process as claimed in any of the preceding claims, wherein the alcohol (C) containing urethane groups is obtainable by
 - a) reacting an amine (A) with a carbonate (B), and
 - b) if desired, working up the reaction mixture obtainable from a).
- 6) A process as claimed in claim 5, wherein the alcohol (C) containing urethane groups is obtainable by a reaction thus



in which

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- 5 R^3, R^4 independently are hydrogen, C_1-C_{18} alkyl, C_2-C_{18} alkyl uninterrupted or interrupted by one or more oxygen and/or sulfur atoms and/or by one or more substituted or unsubstituted imino groups, or are C_2-C_{18} alkenyl, C_6-C_{12} aryl, C_5-C_{12} cycloalkyl or a five- to six-membered heterocycle containing oxygen, nitrogen and/or sulfur atoms, it being possible for each of the radicals stated to be substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms and/or heterocycles, or are a group of the formula $-[X_i]_k-H$,
- 10 Y is C_2-C_{20} alkylene or C_5-C_{12} cycloalkylene or is C_2-C_{20} alkylene which is interrupted by one or more oxygen and/or sulfur atoms and/or by one or more substituted or unsubstituted imino groups and/or by one or more cycloalkyl, $-(CO)-$, $-O(CO)O-$, $-(NH)(CO)O-$, $-O(CO)(NH)-$, $-O(CO)-$ or $-(CO)O-$ groups, it being possible for each of the radicals stated to be substituted by aryl, alkyl, aryloxy, alkyloxy, heteroatoms and/or heterocycles,
- 15 k is a number from 1 to 50, and
- 20 X_i for $i = 1$ to k can be selected independently from the group consisting of $-CH_2-CH_2-O-$, $-CH_2-CH_2-N(H)-$, $-CH_2-CH_2-CH_2-N(H)-$, $-CH_2-CH(NH_2)-$, $-CH_2-CH(NHCHO)-$, $-CH_2-CH(CH_3)-O-$, $-CH(CH_3)-CH_2-O-$, $-CH_2-C(CH_3)_2-O-$, $-C(CH_3)_2-CH_2-O-$, $-CH_2-CH_2-CH_2-O-$, $-CH_2-CH_2-CH_2-CH_2-O-$, $-CH_2-CHVin-O-$, $-CHVin-CH_2-O-$, $-CH_2-CHPh-O-$, and $-CHPh-CH_2-O-$, where Ph stands for phenyl and Vin stands for vinyl.
- 25 7) A reaction mixture obtainable as set forth in any of claims 1 to 6.
- 8) A radiation curable or dual cure coating composition comprising a reaction mixture as claimed or set forth in any of claims 1 to 6.
- 30 9) The use of (meth)acrylic esters containing urethane groups as set forth in any of claims 1 to 6 as reactive diluents or binders in radiation-curable or dual cure coating compositions or as comonomers in poly(meth)acrylates.
- 35 10) The use of (meth)acrylic esters containing urethane groups as set forth in any of claims 1 to 6 in a thermally induced (co)polymerization.
- 11) (Meth)acrylic esters containing urethane groups and obtainable by

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- a) reacting a polyethyleneimine, a hydrogenated polyacrylonitrile, a straight-chain, branched or dendritic polymer having amino functions or an at least partly hydrolyzed poly-N-vinylformamide having a weight-average molecular weight M_w of from 200 to 1 000 000 with a carbonate (B) at a temperature of from 0 to 120°C,

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- b) if desired, working up the reaction mixture obtainable from a),
- c) reacting the reaction mixture from a) or b) with (meth)acrylic acid or with an ester of (meth)acrylic acid with a saturated alcohol (D) in the presence of an enzyme (E), and
- d) if desired, working up the reaction mixture from c).

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